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(54) **Multiple interface connection device and method for reconfiguring standard PC-card interface**

(57) An apparatus and method which overcomes connectivity limitations on PCMCIA and PC-CARD95 compatible devices by reconfiguring standard PCMCIA and PC-CARD pins for additional electrical interfaces. A detection circuit in the PC-card can detect the different interfaces. Once the different interfaces are identified, the connections to the receptacles of the PC-card connector are reconfigured such that the functional assignments of the receptacles conform with the requirements of each different interface. Thus, connection between different electrical interfaces to the physical interface of a PCMCIA-compatible device, without interference between them is possible. This eliminates the need for extra connectors other than the standard PCMCIA and PC-CARD95 connector. Thus, more versatile products with enhanced connectivity may be designed which use the PCMCIA and PC-CARD95 standards.

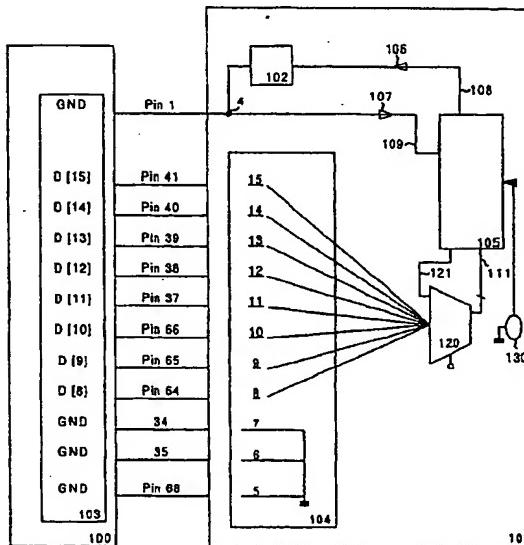


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT									
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)						
A	WO 96 27836 A (P. CHARLES) 12 September 1996 (1996-09-12) * page 1, line 1 - page 6, line 5 * * page 20, line 3 - line 22; figures 1-3 * ---	1-17	G06F13/40						
A	US 5 604 870 A (MOSS ET AL) 18 February 1997 (1997-02-18) * column 2, line 29 - column 6, line 21; figure 1 *	1,15							
A	US 5 334 046 A (BROULIETTE ET AL.) 2 August 1994 (1994-08-02) * column 2, line 28 - column 4, line 60; figures *	1,15							
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)						
			G06F H05K						
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 33%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>12 January 2000</td> <td>Soler, J</td> </tr> </table> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family corresponding document</p>				Place of search	Date of completion of the search	Examiner	THE HAGUE	12 January 2000	Soler, J
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 30 1275

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-01-2000

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9627836	A	12-09-1996	AU 707588 B AU 5305996 A CA 2189782 A EP 0765502 A JP 10502477 T US 5889976 A	15-07-1999 23-09-1996 12-09-1996 02-04-1997 03-03-1998 30-03-1999
US 5604870	A	18-02-1997	NONE	
US 5334046	A	02-08-1994	WO 9419844 A US 5492481 A	01-09-1994 20-02-1996

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